

nants, residues, and corrosives and to purge them with the rinse solution through the drain tube 78. This wash and purge function may be provided sufficiently often to assure that no abrasive formations or corrosives are allowed to form on any of the mating surfaces of the valve. This substantially reduces wear of the sealing surfaces of the sealing elements of the stator plate face. It furthermore reduces any possibility of contamination between fluids flowed through any of the delivery tubes positioned through the rotor.

The drain tube 78 is preferably made of a sturdy material such as steel. In this configuration, a guide plate 80 may be positioned between the head of the bolt 12 and the lower washer 35 against which the spring is positioned. The guide plate 80 guides each of the delivery tubes 46 in alignment with the port 40 in the rotor 10 through which it is positioned. The guide plate 80 prevents pinching and bending of the delivery tubes 40 when the rotor 10 is rotated to a selected position. The steel drain tube 78 acts as a pin extending from rotor 10 which rotates the guide plate 80 along with the rotor 10 to assure that proper alignment between the guide plate and the ports of the rotor are maintained.

What is claimed is:

1. A shear valve for selectively transferring fluids from a plurality of fluid conduits to a fluid element comprising:

a first member having a port in fluid communication with said fluid element and providing a sealing surface;

a second member having a plurality of ports each of which is in fluid communication with one of said fluid conduits, and providing a sealing surface for each of said ports, said second member being movable relative to said first member to selectively align said ports in said second member with said port in said first member;

first sealing means for providing fluid communication between said first member port and one of said second member ports when such second member port is aligned with said first member port and for closing each of said second member ports to any fluid communication when said second member is moved as that said ports are not aligned with said first member port, said first sealing means separating said first and second members to form a passage therebetween;

second sealing means for providing a seal between said first and second members to enclose said passage;

means for introducing a wash solution into said passage for cleansing exposed sealing surfaces of said first and second members within said passages; and a drain port communicating with said passage for removal of said solution from said passage.

2. The shear valve as in claim 1 wherein the means for introducing a wash solution into said passage includes said port in said first member.

3. The shear valve as in claim 1 wherein said fluid element comprises pump means for drawing said wash solution through one of said ports of said second member when said second member is in a first position with respect to said first member and for expelling said wash solution through said port in said first member into said passage when the second member is in a second position with respect to said first member.

4. A shear valve for selectively transferring fluids from a plurality of fluid conduits to a fluid element comprising:

a first member having a port in fluid communication with said fluid element and providing a sealing surface;

a second member having a plurality of ports each of which is in fluid communication with one of said fluid conduits, said second member being movable relative to said first member to selectively align said ports in said second member with said port in said first member;

individual tubular sealing elements disposed about corresponding ports of said second member, said sealing elements slidably contacting and sealing against the first member sealing surface, the length of such sealing elements spacing the first and second members to form a passage therebetween;

sealing means for providing a seal between said first and second members to enclose said passage;

said fluid element comprising pump means for drawing a wash solution through a selected one of said ports of said second member when said second member is positioned to provide fluid communication between said selected port with said first member port and for expelling said wash solution through said first member port into said passage to claim exposed portions of said first member sealing surface when said second member is moved with respect to said first member such that said first member port is unaligned with any of said second member ports and such that said individual tubular sealing elements will close said second member ports to any fluid communication; and

a drain port communicating with said passage for removal of said solution from said passage.

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